



**Utah Division of Air Quality  
New Source Review Section**

**Form 23  
Rotary Kiln Incinerator**

Company \_\_\_\_\_  
Site /Source \_\_\_\_\_  
Date \_\_\_\_\_

There are federal standards and guidelines that govern incineration of:  
Hospital/medical/infectious waste; municipal waste; commercial/industrial waste, cement kilns. Consult 40CFR60,  
Subparts AAAA, DDDD, E<sub>C</sub>, and F, as appropriate

<b>General Information</b>	
1. Flow diagram designations of rotary kiln Incinerator described on this form	
2. Manufacturer of Incinerator: _____	3. Model name and number: _____
4. Description of material burned: _____ _____	5. Maximum amount of waste to be incinerated: _____ lb/hr
6. Estimated daily amount of waste to be incinerated: _____ pounds per day	7. Height of stack above grade: _____ feet
8. Height of tallest structures within 150 feet: _____ feet	9. Primary burner used: <input type="checkbox"/> Yes <input type="checkbox"/> No Maximum rating: _____ BTU/hr
10. Secondary Burner used: <input type="checkbox"/> Yes <input type="checkbox"/> No Maximum rating _____ BTU/hr	
11. Description of Typical Waste to Be Incinerated: <input type="checkbox"/> Medical/hospital/infectious <input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial	
<b>Operational Information</b>	
12. Average operation time of incinerator: _____ hrs/day _____ days/week _____ weeks/year	
13. Maximum operation time of incinerator: _____ hrs/day _____ days/week _____ weeks/year	
14. Residence time: Primary _____ seconds Secondary _____ seconds	
15. Proposed BACT (Best Available Control Technology): <input type="checkbox"/> Quench Tower <input type="checkbox"/> Heat Exchanger <input type="checkbox"/> Dry Scrubber (DAQ Form 9) <input type="checkbox"/> Wet Scrubber (DAQ Form 9) <input type="checkbox"/> Baghouse (DAQ Form 10) <input type="checkbox"/> Carbon Adsorption Unit	

## Form 23 - Rotary Kiln Incinerator (Continued)

Emission Information			
<b>16. Average Operation</b>			
Contaminant	Concentration or Emission Rate per Identical Source		Method Used to Determine Concentration or Emission Rate
Particulate matter	_____ gr/dscf	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Carbon Monoxide	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Nitrogen Oxides	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Organic material	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Sulfur Dioxide	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
<b>16. Maximum Operation - Continued</b>			
Contaminant	Concentration or Emission Rate per Identical Source		Method Used to Determine Concentration or Emission Rate
Particulate matter	_____ gr/dscf	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Carbon Monoxide	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Nitrogen oxides	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Organic material	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
Sulfur Dioxide Hydrogen Chloride	_____ ppm (vol)	<input type="checkbox"/> lb/10 <sup>6</sup> BTU <input type="checkbox"/> lb/hr	
<b>16. Maximum Operation - Metals - Continued</b>			
Cadmium: _____ milligram/dscf		Mercury: _____ pounds per hour	
Lead: _____ pounds per hour		Dioxins/furins: _____ pounds per hour	
<b>17. Exhaust Point Information</b>			
Flow diagram designation(s) of exhaust point: _____			
Description of exhaust point (location in relation to buildings, direction, hooding, etc.): _____			
Exhaust height above grade: _____ feet		Exhaust diameter: _____	
Greatest height of nearby buildings: _____ feet		Exhaust distance from nearest plant boundary: _____ feet	
<b>Average Operation</b>		<b>Maximum Operation</b>	
Exhaust gas temperature: _____		Exhaust gas temperature: _____	
Gas flow rate through each exhaust point: _____		Gas flow rate through each exhaust point: _____	

## Form 23 - Rotary Kiln Incinerator (Continued)

### Emissions Calculations (PTE)

18. Calculated emissions for this device

PM<sub>10</sub> \_\_\_\_\_ Lbs/hr \_\_\_\_\_ Tons/yr

NO<sub>x</sub> \_\_\_\_\_ Lbs/hr \_\_\_\_\_ Tons/yr

SO<sub>x</sub> \_\_\_\_\_ Lbs/hr \_\_\_\_\_ Tons/yr

VOC \_\_\_\_\_ Lbs/hr \_\_\_\_\_ Tons/yr

HAPs \_\_\_\_\_ Lbs/hr (speciate) \_\_\_\_\_ Tons/yr (speciate)

Submit calculations as an appendix.

### Instructions

NOTE: 1. **Submit this form in conjunction with Form 1 and Form 2.**

2. Call the Division of Air Quality (DAQ) at **(801) 536-4000** if you have problems or questions in filling out this form. Ask to speak with a New Source Review engineer. We will be glad to help!

3. Attach spec. sheets for all burners, pollution control equipment, etc.

1. Attach flow diagram of the described incinerator.
2. Supply the manufacturer of the incinerator.
3. Supply the model and number of the incinerator.
4. Please describe the source of waste to be incinerated.
5. Supply the maximum amount of waste to be incinerated.
6. Specify the daily amount of waste to be incinerated.
7. Indicate the height of the stack above ground level.
8. Indicate the height of tallest structure within 150 feet.
9. Supply the specifications for primary burner used.
10. Supply the specifications for secondary burner used.
11. Indicate the type of typical waste to be incinerated.
12. Supply the average operation time of the incinerator.
13. Supply the maximum operation time of the incinerator.
14. Supply the residence time in the primary and secondary chambers.
15. Indicate the control technology to be use. Submit the corresponding form, if available, for the control technology. Submit specifications for control technology which a form is not available for. Forms available upon request are the following:

_____	Form 3	Afterburners
_____	Form 4	Flares
_____	Form 5	Adsorption Unit
_____	Form 6	Cyclone
_____	Form 7	Condenser
_____	Form 8	Electrical Precipitators
_____	Form 9	Scrubber
_____	Form 10	Fabric Filter

16. During average and maximum operation, specify the concentration or emission rate of the listed contaminants.
17. Supply the exhaust specifications listed.
18. Supply calculations for all criteria pollutants and HAPs. Use AP42 or Manufacturers data to complete your calculations.

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